

# DEPARTMENT OF DEFENSE

FY 1997 BUDGET ESTIMATES

SUBMITTED TO CONGRESS, MARCH 1996



19960411 032

CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE

DISTRIBUTION STATEMENT A

Approved for public release;  
Distribution is unlimited.

DTIC QUALITY INSPECTED 1

DEPARTMENT OF DEFENSE  
BUDGET ESTIMATE SUBMISSION FOR FY 1997  
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE

TABLE OF CONTENTS

	<u>PAGE NO.</u>
APPROPRIATION LANGUAGE . . . . .	1
PROGRAM AND FINANCING . . . . .	2
APPROPRIATION JUSTIFICATION . . . . .	4
PART I - PURPOSE AND SCOPE	
PART II - JUSTIFICATION OF FUNDS REQUIRED	
PART III - PROGRAM DESCRIPTIONS AND MILESTONES	
BUDGET ACTIVITY 1: RESEARCH AND DEVELOPMENT . . . . .	17
PURPOSE AND SCOPE	
JUSTIFICATION OF FUNDS REQUIRED	
FUNDED FINANCIAL SUMMARY	
JUSTIFICATION BY PROGRAM	
BUDGET ACTIVITY 2: PROCUREMENT . . . . .	23
PURPOSE AND SCOPE	
JUSTIFICATION OF FUNDS REQUIRED	
FUNDED FINANCIAL SUMMARY	
JUSTIFICATION OF FUNDS REQUIRED	
BUDGET ITEM JUSTIFICATION SHEET (EXHIBIT P-40)	
WEAPONS SYSTEM COST ANALYSIS (EXHIBIT P-5)	
BUDGET PROCUREMENT HISTORY AND PLANNING (EXHIBIT P-5A)	
BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE . . . . .	44
PURPOSE AND SCOPE	
JUSTIFICATION OF FUNDS REQUIRED	
FUNDED FINANCIAL SUMMARY	
MILITARY CONSTRUCTION, DEFENSE-WIDE . . . . .	54
PURPOSE AND SCOPE	
JUSTIFICATION OF FUNDS REQUIRED	
FUNDED FINANCIAL SUMMARY	

**DEPARTMENT OF DEFENSE  
JUSTIFICATION OF FY 1997 BUDGET ESTIMATE SUBMISSION  
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE**

APPROPRIATION LANGUAGE

For expenses, not otherwise provided for, necessary for the destruction of the United States stockpile of lethal chemical agents and munitions in accordance with the provisions of section 1412 of the Department of Defense Authorization Act, 1986 (50 U.S.C. 1521), and for the destruction of other chemical warfare materials that are not in the chemical weapon stockpile, \$799,847,000 of which \$477,947,000 shall be for Operation and Maintenance, \$273,600,000 shall be for Procurement to remain available until September 30, 1999, and \$48,300,000 shall be for Research, Development, Test and Evaluation to remain available until September 30, 1998.

00 MAR 96

DEF ACCT SUMMARY

Chem Agents & Munitions Destruction, Def  
Program and Financing (in Thousands of dollars)

Obligations

Budget Plan (amounts for PROCUREMENT  
actions programmed)

Identification code	97-0390-0-1-051	1995 actual	1996 est.	1997 est.	1995 actual	1996 est.	1997 est.
<b>Program by activities:</b>							
<b>Direct program:</b>							
00.0101	Chem Agents & Munitions Destruct-RDT&E	20,700	53,003	48,300	41,665	52,755	25,253
00.0201	Chem Agents & Munitions Destruct-Proc	198,965	259,029	273,600	155,455	332,287	308,307
00.0301	Chem Agents & Munitions Destruct-O&M	355,781	345,218	477,947	355,781	345,218	477,947
00.9101	Total direct program	575,446	657,250	799,847	552,901	730,260	811,507
01.0101	Reimbursable Program	451	550	225	450	551	225
10.0001	Total	575,897	657,800	800,072	553,351	730,811	811,732
<b>Financing:</b>							
<b>Offsetting collections from:</b>							
11.0001	Federal funds(-)	-451	-550	-225	-451	-550	-225
17.0001	Recovery of prior year obligations				-10,673		
21.4002	Unobligated balance available, start of year:						
21.4009	For completion of prior year budget plans				-164,959	-193,073	-120,062
21.4009	Reprogramming from/to prior year budget plan	-5,105					
24.4002	Unobligated balance available, end of year:				193,073	120,062	108,402
25.0001	For completion of prior year budget plans	5,108			5,108		
25.0001	Unobligated balance expiring						
39.0001	Budget authority	575,449	657,250	799,847	575,449	657,250	799,847
<b>Budget authority:</b>							
40.0001	Appropriation	575,449	667,250	799,847	575,449	667,250	799,847
41.0001	Transferred to other accounts (-)		-10,000			-10,000	
43.0001	Appropriation (adjusted)	575,449	657,250	799,847	575,449	657,250	799,847
<b>Relation of obligations to outlays:</b>							
71.0001	Obligations incurred				552,900	730,261	811,507
72.1001	Orders on hand, SOY				-11	-451	
72.4001	Obligated balance, start of year				363,310	511,795	747,942
74.1001	Orders on hand, EOY				451		
74.4001	Obligated balance, end of year				-511,795	-747,942	-947,602
77.0001	Adjustments in expired accounts (net)				-6,385		
78.0001	Adjustments in unexpired accounts				-10,673		
90.0001	Outlays (net)				387,798	493,663	611,847

Identification code	97-0390-0-1-051	1995 actual	1996 est.	1997 est.
Direct obligations:				
121.001	Travel and transportation of persons	1,221	1,758	2,064
122.001	Transportation of things	28	735	544
123.301	Communications, utilities, and miscellaneous charges	14	6,376	7,418
124.001	Printing and reproduction	29	40	42
125.201	Other services with the private sector	20,280	25,101	27,593
125.301	Purchases goods/services (inter/intra) Fed accounts	526,174	692,060	769,213
126.001	Purchase of goods/services from other Fed agencies	2,316	1,026	1,122
131.001	Supplies and materials	2,839	3,164	3,511
	Equipment			
199.001	Total Direct obligations	552,901	730,260	811,507
Reimbursable obligations:				
225.201	Other services with the private sector	25	50	25
225.301	Purchases goods/services (inter/intra) Fed accounts	425	500	200
231.001	Purchase of goods/services from other Fed agencies		1	
	Equipment			
299.001	Total Reimbursable obligations	450	551	225
999.901	Total obligations	553,351	730,811	811,732

DEPARTMENT OF DEFENSE  
JUSTIFICATION OF FY 1997 BUDGET ESTIMATE SUBMISSION  
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE

APPROPRIATION JUSTIFICATION

	(In Thousands of Dollars)
FY 1997 Estimate	\$799,847
FY 1996 Budget	\$657,250
FY 1995 Actual	\$575,449

Part I -- Purpose and Scope

The Chemical Demilitarization Program is a national program of high significance to the Army, the Department of Defense and State, the Administration, the Congress, and the world. This is a Congressionally mandated program. The objective of the Chemical Demilitarization Program is to destroy the U.S. inventory of lethal chemical agents and munitions and related (non-stockpile) materiel and provide for emergency response capabilities; while avoiding future risks and costs associated with the continued storage of chemical warfare materiel. The Chemical Demilitarization Program supports the international initiatives to rid the world of chemical weapons.

The Chemical Demilitarization Program is based on section 1412 of the National Defense Authorization Act for Fiscal Year 1986 (Public Law 99-145) that directs the Department of Defense to destroy the complete unitary chemical stockpile by September 30, 1994 in conjunction with the production of binary chemical weapons. Public Law 99-145 was subsequently amended by the National Defense Authorization Act for Fiscal Year 1989 (Public Law 100-456), the National Defense Authorization Act for Fiscal Year 1992 (Public Law 102-190), and the National Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484) which extended program completion to April 30, 1997; July 31, 1999; and December 31, 2004, respectively. The Chemical Demilitarization Program was restructured by the Office of the Secretary of Defense Program Decision Memorandum, August 16, 1994, by slipping construction and operation of the Pueblo, Blue Grass, Aberdeen and Newport facilities by one year. Estimates contained in this budget submission reflect a disposal completion date in calendar year 2004.

The House Appropriations Committee Report (101-822), accompanying the Fiscal Year 1991 Department of Defense Appropriations Act, directed the establishment of an overall program and a single office responsible for all Department of Defense chemical warfare destruction activities. As a result, the U.S. Army Chemical Materiel Destruction Agency (USACMDA) was established in FY 1992 from the restructuring of the office of the Program Manager for Chemical Demilitarization. The Program Manager for Chemical Demilitarization (PM Cml Demil) and Program Manager for Non-Stockpile Chemical Materiel (PM NSCM) became part of the U.S. Army Chemical Demilitarization and Remediation Activity (USACDRA) of the U.S. Army Chemical and Biological Defense Command (CBDCOM), effective October 1, 1994.

In recognition of the importance and complexity of the Chemical Demilitarization Program, the Department of Defense designated the Chemical Demilitarization Program as a Major Defense Acquisition Program (Acquisition Category ID) on December 26, 1994. This designation transitioned management of the Chemical Demilitarization Program to the Assistant Secretary of the Army (Research, Development and Acquisition). Effective March 28, 1995, the Program Manager for Chemical Demilitarization was formed which consists of the Chemical Stockpile Disposal Project, the Chemical Stockpile Emergency Preparedness Project, the Non-Stockpile Chemical Materiel Project, the Alternative Technologies and Approaches Project, and the Cooperative Threat Reduction Product Team. The Cooperative Threat Reduction Product Team is funded under the Former Soviet Union Threat Reduction and not within the Chemical Agents and Munitions Destruction, Defense appropriation.

The Chemical Stockpile Disposal Project (CSDP): The Project Manager for the Chemical Stockpile Disposal is responsible for the safe and efficient destruction of the United States unitary chemical stockpile. To accomplish this mission, the Project Manager manages, plans, and coordinates all phases of the chemical disposal project. This includes design, construction, equipment acquisition and installation, training, systemization testing, operations, and closure of the chemical disposal plants and the training facility. The Project Manager also ensures that physical security, safety, and environmental requirements associated with the project are identified, are in compliance with all Department of Defense and Department of the Army directives and Federal, State, and local laws, and are integrated into the entire technical effort.

The Chemical Stockpile Emergency Preparedness Project (CSEPP): The CSEPP is an effort complementary to the Chemical Stockpile Disposal Program to enhance protection of the civilian population during storage and destruction of the United States' chemical weapons stockpile. The Army with the Federal Emergency Management Agency's (FEMA) assistance has the lead in the CSEPP to provide emergency response/preparedness to the communities surrounding the eight disposal sites. In response to Congress, General Accounting Office (GAO) and Department of the Army (DA) concerns, a major restructuring of the overall management of CSEPP occurred on October 1, 1994, to streamline procedures, to improve responsiveness to state and local jurisdictions, and to improve the overall budgeting process. The restructuring established an Executive Council, co-chaired by the Army and FEMA, to resolve issues and provide policy guidance, and a centralized CSEPP office. The Office of the Assistant Secretary of the Army (Research, Development and Acquisition) is the final decision maker on all CSEPP matters.

The Non-Stockpile Chemical Materiel Project (NSCMP): In 1991, the Deputy Secretary of Defense directed that the Department of the Army be fully accountable for all Department of Defense chemical warfare-related materiel destruction and designated the Secretary of the Army as the Defense Executive Agent for this purpose. The U.S. Army Chemical Demilitarization and Remediation Activity (subsequently restructured as the Program Manager, Chemical Demilitarization) was officially established in 1992 with the expressed mission to execute chemical materiel destruction by providing centralized management of the demilitarization and disposal of the United States stockpile of lethal chemical warfare agents and munitions and all non-stockpile chemical materiel.

The NSCMP mission includes: identifying the magnitude of the non-stockpile program in terms of locations, types of agents and materiel, and quantities that require treatment; developing and implementing transportation and destruction procedures; supporting ratified chemical treaties; and developing and implementing schedule and cost estimates. Non-stockpile chemical materiel includes: existing recovered chemical warfare materiel and that which may be recovered from burial sites, binary munitions and related components, miscellaneous chemical warfare materiel stipulated in the Chemical Weapons Convention, and former chemical weapons production facilities.



The Alternative Technologies and Approaches Project: The National Research Council (NRC) Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Project, provided its report "Recommendations for the Disposal of Chemical Agents and Munitions" to the Army on February 4, 1994. The Army evaluated the recommendations in the NRC Report, considered comments provided by concerned citizens residing near each of the stockpile sites, and provided its report to Congress on April 12, 1994. Based upon the Army's evaluation of the NRC report, several enhancements and/or changes are occurring in parallel with the Army's proceeding without deliberate delay with the reverse assembly/incineration (baseline) program. In August 1994, the Army initiated an aggressive research and development program on two low-temperature, low-pressure alternative technologies (chemical neutralization as stand-alone and chemical neutralization followed by biodegradation of the neutralized agent). These technologies are being explored for potential use at low-volume bulk-only sites, Aberdeen Proving Ground, Maryland and Newport Chemical Activity, Indiana. On-going efforts include internal laboratory research and bench-scale testing at the Edgewood Research, Development and Engineering Center. Also, three additional promising alternative technologies are being explored. The National Research Council of the National Academy of Sciences is currently evaluating the five alternative technologies for potential use at the bulk-only sites. The Alternative Technologies and Approaches effort is on track for a Department of Defense decision during the 1st Quarter FY 1997 to determine which alternative technology, if any, will proceed to pilot testing.

## Part II -- Justification of Funds Required

As the Executive Agent within the Department of Defense for the Chemical Stockpile Disposal Project, the Army is responsible for the safe and efficient destruction of the United States unitary chemical stockpile and all non-stockpile chemical materials. To accomplish this mission, the Chemical Agents and Munitions Destruction, Defense appropriation provides resources to design, equip, operate, and maintain disposal facilities; train chemical disposal workers; provide safe and secure on-site transportation of chemical agents and munitions for disposal; dispose of all waste products; decontaminate and dismantle all chemical disposal facilities; and provide for emergency preparedness for the communities surrounding the eight disposal locations within the Continental United States (CONUS). Chemical agents and munitions are currently stored

within the CONUS and on Johnston Atoll in the Pacific. The eight storage installations in CONUS are located at Aberdeen Proving Ground, Maryland; Anniston Army Depot, Alabama; Blue Grass Army Depot, Kentucky; Newport Chemical Activity, Indiana; Pine Bluff Arsenal, Arkansas; Pueblo Chemical Activity, Colorado; Tooele Army Depot, Utah; and Umatilla Chemical Activity, Oregon.

The United States is the only nation which has developed and demonstrated a technology which can safely destroy large quantities of chemical weapons. The first prototype fully integrated disposal plant, the Johnston Atoll Chemical Disposal System on Johnston Atoll, has demonstrated full scale disposal operations in compliance with safety and environmental requirements for over four years of operational testing under rigorous independent evaluation. In August 1993, the Secretary of Defense provided to Congress certification of the successful completion of operational verification testing (OVT); and subsequently, full-scale disposal operations of nerve agent (GB) rockets began in January 1994. Destruction of MC-1 GB-filled bombs began September 1, 1995 at the Johnston Atoll Chemical Agent Disposal Systems (JACADS). Many lessons learned have emerged from this pioneering disposal plant and will be used to enhance the environmental compliance, safety and operational efficiency of the Continental United States (CONUS) destruction plants.

Construction of the first disposal facility in the CONUS, the Tooele Chemical Agent Disposal Facility (TOCDF) at Tooele, Utah, was completed in July 1993. Plant systemization began in August 1993 following the Johnston Atoll Chemical Agent Disposal System certification of OVT completion by the Secretary of Defense. All testing and training activities were on track to be completed as scheduled; however, serious delays in the receipt of environmental approvals were experienced. Consequently, required surrogate burns did not commence until June 1995. Phase one of the Preoperational Survey began in August 1995. The delays resulted in postponement of the start of agent destruction operations from 4th Quarter FY 1995 to 3rd Quarter FY 1996.

The Army released a Request for Proposal for the Anniston Chemical Agent Disposal Facility (ANCDF) in April 1992. Congressional delays and evolving environmental permitting requirements and processing reviews, resulted in delay of award of the construction contract for ANCDF until second quarter of fiscal year 1996. On February 29, 1996 a contract for construction and operation of the ANCDF was awarded, with a

"limited notice to proceed provision," to Westinghouse Electric Company. This provision allows the contractor to perform necessary preconstruction activities such as, writing and submitting for approval the Project Network Analysis System and Emergency Response and Safety Plans; reviewing in detail the designs; obtaining necessary construction permits; and submitting insurance certificates and bonds. Construction activities will not commence until issuance of the necessary environmental permits. Requests for Proposals for both the Umatilla Chemical Agent Disposal Facility and the Pine Bluff Chemical Agent Disposal Facility were released in July 1994.

To carry out the congressional mandate to safely and efficiently dispose of the unitary chemical stockpile, the Army is actively engaged in meeting all requirements of the National Environmental Policy Act, the Resource Conservation and Recovery Act, the Toxic Substance Control Act, and the Clean Air and Clean Water Acts. Additionally, the Army, in coordination with the Federal Emergency Management Agency, is developing and implementing a Chemical Stockpile Emergency Preparedness Project (CSEPP) to ensure that the public and environment are adequately protected at the eight Continental United States storage installations and their surrounding communities. There is also an on-site CSEPP at Johnston Atoll.

Emergency preparedness is based on the calculated risk from all sources, including storage and demilitarization. The calculated risk from storage exceeds the risk of the demilitarization operations. Therefore, in terms of emergency preparedness, the preparations for an accident involving chemical agents in the civilian community are essential. Emergency responders must have the capability to immediately recognize the source and initiate protective actions for the public and emergency workers. This preparation requires a coordinated effort between the installation, local and state officials.

The Non-Stockpile Chemical Materiel Project (NSCMP) Survey and Analysis Report was submitted to Congress in November 1993 and will be updated for submission to Congress in the third quarter FY 1996. An Implementation Plan to accomplish the destruction of non-stockpile chemical materiel was developed in August 1995. This plan reflects the approach needed to comply with the requirements of the Chemical Weapons Convention and includes the destruction of lethal chemical weapons, agents, and contaminated materiel. The plan provides for development and demonstration of mobile treatment systems for destruction of the non-stockpile chemical munitions that are being stored at active military installations. The plan also provides for the development of acquisition systems for the

purpose of providing the urgently needed capability for on-site destruction of chemical warfare materiel that may be recovered from suspect burial sites.

The Small Burials Contract was awarded to Teledyne-Brown Engineering of Huntsville, Alabama to decontaminate and dispose of buried chemical warfare materiel across the United States using mobile treatment technologies developed by the Army. The firm will also assist with technical design reviews, equipment testing, and disposal alternatives. The Munitions Management Device, Version 1 (MMD-1) is designed to destroy non-explosively configured chemical weapons recovered from burial sites across the country. The Munitions Management Device, Version 2 (MMD-2) and Munitions Management Device, Version 3 (MMD-3) will be designed to destroy explosively configured chemical warfare materiel and bulk quantities of chemical warfare materiel, respectively.

The Army is exploring alternative technologies which may be used in lieu of reverse assembly/incineration (baseline technology) in executing this important national mission. Funds are required to support the on-going research and development efforts on two neutralization-based alternative technologies (chemical neutralization and chemical neutralization followed by biodegradation of the neutralized agent). Also, the Army has identified three additional alternative technologies from industry's response to the Commerce Daily Business in August 1995. These technologies are electrochemical oxidation, high temperature gas phase reduction, and molten metal. These technologies, as well as the two neutralization processes, have been submitted to the National Research Council for further review. The Army continues to monitor industry for other alternative technology possibilities.

This document provides for justification for FY1997 financial requirements in support of the Chemical Demilitarization Program, which are budgeted in the Chemical Agents and Munitions Destruction, Defense appropriation. This document provides justification for requirements for the construction of chemical disposal facilities budgeted in the Military Construction, Defense-Wide appropriation, in order to provide a clear non-fragmented accounting of the requirements necessary to meet the congressional mandate.

### Part III -- Program Descriptions and Milestones

The Chemical Stockpile Disposal Project (CSDP) is complying with the requirements of the National Environmental Policy Act (NEPA) in determining the locations to construct disposal facilities. The Army has solicited and received assistance from such Federal agencies as the Department of Health and Human Services (DHHS), U.S. Environmental Protection Agency (EPA), Department of Transportation (DOT), Federal Emergency Management Agency (FEMA), and the President's Council on Environmental Quality. The National Research Council of the National Academy of Sciences performs an oversight function for the Chemical Stockpile Disposal Project (CSDP). Although not in an oversight role, the MITRE Corporation conducts independent studies on various aspects of the program at the request of the Army.

The Army completed a Final Programmatic Environmental Impact Statement (FPEIS) in January 1988 that culminated in the Record of Decision in February 1988 to destroy the chemical stockpile at the eight chemical storage locations in the Continental United States utilizing the safest, most environmentally sound and most cost-effective method. A site-specific environmental impact statement, tied to the FPEIS, will be prepared for all eight sites. The individual states, as well as the Environmental Protection Agency and Department of Health and Human Services, will assist the Army as cooperating agencies in the development of these documents. Additionally, the National Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484) directed the Army to establish a Chemical Demilitarization Citizens' Advisory Commission (CAC) for each low-volume site and for any state in which there is located a chemical stockpile storage site, if requested by the Governor. The CAC's have been established for each state. Army representatives meet not less than twice a year with each commission to receive citizen and state concerns regarding the Army's ongoing Chemical Demilitarization Program.

In September 1991, it was determined that the structured program reviews of the CSDP would be conducted under the Army Systems Acquisition Review Council (ASARC) procedures with membership including Army and Office of the Secretary of Defense participants, as well as other Federal Agencies. In December 1994, the Chemical Demilitarization Program was recognized as a Major Defense Acquisition Program conducted under the auspices of the Defense Acquisition Board.

In FY 1997, major program activities will include the following items: continue disposal operations at the Johnston Atoll Chemical Agent Disposal System and Tooele Chemical Agent Disposal Facility; the Chemical Agent Munitions Disposal System will continue to support the Chemical Stockpile Disposal Project and the Alternative Technologies and Approaches Project; continue munitions reconfiguration operations and construction activities at Anniston Chemical Agent Disposal Facility; continue construction activities at Umatilla and Pine Bluff Chemical Agent Disposal Facilities; initiate construction activities at Pueblo Chemical Agent Disposal Facility; and initiate Blue Grass depot support construction activities. In addition, the Chemical Stockpile Emergency Preparedness Project activities will continue. Chemical Stockpile Disposal Project (CSDP) enhancements related to the Public Outreach Program and surveillance of the chemical stockpile will be on-going. In the Non-Stockpile Chemical Materiel Project, acquisition of equipment in support of on-site destruction of recovered chemical warfare materiel will continue.

**Major Milestones for the Chemical Stockpile Disposal Project are as follows:**

Completed Johnston Atoll Chemical Agent Disposal System (JACADS) Operational Verification Testing (OVT)	March 1993
Certified OVT completion and started systemization-- Tooele Chemical Agent Disposal Facility	August 1993
Initiated JACADS full-scale disposal operations of nerve agent (GB) rockets	January 1994
Completed destruction of GB rockets at JACADS	July 1995
Completed destruction of MC1 GB-filled Bombs at JACADS 1995	Mid-November
Completed destruction of MK-94 GB-filled bombs at JACADS	February 1996
Commence destruction of 155 MM GB-filled projectiles at JACADS	3rd Qtr FY 1996
Complete systemization and start operations-- Tooele Chemical Agent Disposal Facility	3rd Qtr FY 1996
Contract award-- Anniston Chemical Agent Disposal Facility Pine Bluff Chemical Agent Disposal Facility Umatilla Chemical Agent Disposal Facility Pueblo Chemical Agent Disposal Facility Blue Grass Chemical Agent Disposal Facility Aberdeen Chemical Agent Disposal Facility Newport Chemical Agent Disposal Facility	February 1996 3rd Qtr FY 1996 4th Qtr FY 1996 3rd Qtr FY 1997 2nd Qtr FY 1998 2nd Qtr FY 1999 2nd Qtr FY 2000

**Major Milestones for the Alternative Technologies and Approaches Project are as follows:**

Army Submitted Final Report on Alternative Chemical  
Demilitarization Technologies to Congress

April 1994

Selection of Alternative Technologies and Approaches for Pilot Testing

1st Qtr FY 1997

Begin Construction

1st Qtr FY 1999

Initiate Pilot Testing

2nd Qtr FY 2002

Decision to go Full Scale Operations

1st Qtr FY 2003

Begin Operations

3rd Qtr FY 2003

Complete Operations

1st Qtr FY 2005



**Major Milestones for the Chemical Stockpile Emergency Preparedness Project (CSEPP) Project are as follows:**

Completion of Initial Planning, Training, and Most Equipment Buys	1st Qtr FY 1997
Complete Off-Post Communication Systems Purchases	4th Qtr FY 1997
Complete Off-Post Over-Pressurization Purchases	4th Qtr FY 1997
Sustainment Phase of the Improved Response Capabilities	4th Qtr FY 1997
Conduct CSEPP Exercises at:	
Tooele, Utah	1st Qtr FY 1997
Anniston, Alabama	2nd Qtr FY 1997
Lexington, Kentucky	2nd Qtr FY 1997
Pine Bluff, Arkansas	2nd Qtr FY 1997
Aberdeen Proving Ground, Maryland	3rd Qtr FY 1997
Newport, Indiana	3rd Qtr FY 1997
Umatilla, Oregon	3rd Qtr FY 1997
Pueblo, Colorado	4th Qtr FY 1997

**Major Milestones for the Non-Stockpile Chemical Materiel Project are as follows:**

Submitted Survey and Analysis Report to Congress	November 1993
Developed and Validate Non-Intrusive Munitions Assessment Technology	November 1993
Initiated Preparation of Concept Plan	March 1994
Completed Management Plan	April 1994
Awarded Contract for Disposal at Small Burials Sites	July 1995
Developed Final Implementation Plan	August 1995
Publish First Update of Survey and Analysis Report	3rd Qtr FY 1996
Submit National Chemical Weapons Destruction Plan	4th Qtr FY 1996
Submit Initial Chemical Weapon Production Facility Destruction Plan	2nd Qtr FY 2000
Complete Destruction of CWC Miscellaneous Chemical Weapons Materiel	4th Qtr FY 2000
Complete Destruction of Recovered Chemical Weapons Materiel	2nd Qtr FY 2001

# **BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION**

	(In Thousands of Dollars)
FY 1997 Estimate	\$48,300
FY 1996 Budget	\$53,003
FY 1995 Actual	\$20,700

## **Purpose and Scope**

This budget activity provides the resources for the development of alternative technologies to incineration for the disposal of chemical agents and the design, acquisition and testing of prototype equipment for the recovery and treatment of the non-stockpile chemical materiel.

## **Justification of Funds Required**

Funds are required in FY 1997 to conduct research, in parallel with the reverse assembly/incineration (baseline technology), to determine if alternative technologies and approaches exist which are safer, less costly, or rapidly implementable; and for the acquisition and testing of prototype equipment for on-site treatment of recovered chemical warfare materiel in support of the Non-Stockpile Chemical Materiel Project.

## **Funded Financial Summary**

### **A. RESOURCES:** (In Thousands of Dollars)

<u>TITLE</u>	<u>FY 1995 Actual</u>	<u>FY 1996 Budget</u>	<u>FY 1997 Estimate</u>
Alternative Technologies and Approaches - Program Management	0	500	500
Alternative Technologies and Approaches - Mission	\$ 9,400	\$ 15,400	\$ 15,500
Subtotal Alternative Technologies and Approaches	9,400	15,900	16,000
Non-Stockpile Chemical Materiel Project	\$ 11,300	\$ 37,103	\$ 32,300
Total	\$ 20,700	\$ 53,003	\$ 48,300

## BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION

TITLE: DEMILITARIZATION TECHNOLOGY

### B. DESCRIPTION OF ELEMENT:

#### Alternative Technologies and Approaches Project:

This budget activity provides resources for the research and development of alternative technologies to incineration for the disposal of chemical agents. The Product Manager for Alternative Technologies and Approaches has implemented a program including laboratory and bench-scale testing, pilot plant design, and preparation of environmental permit applications for two low-temperature, low-pressure technologies which may lead to one or two alternative systems for pilot testing. The two technologies are stand-alone neutralization and neutralization followed by biological degradation. Three additional alternatives have been identified to include electro-chemical oxidation, molten-metal, and high temperature gas phase reduction. The National Research Council (NRC) is reviewing and evaluating all five technologies and will provide recommendations in a report to the Army in August 1996. The Army continues to monitor industry for other alternative technologies which may be applicable. Fiscal Year 1997 funding is required to provide support to develop pilot plant construction bid packages, to develop procedures for systemization, operation and maintenance of the pilot plant, to optimize effluent disposal methods, and to continue development of analytical and monitoring methods specific to the alternative technology. Laboratory testing will be provided on an as needed basis to support the environmental permit approval process.

#### Non-Stockpile Chemical Materiel Project:

Funds are included for the continued development, design, purchase, installation, and acceptance testing of equipment for the Non-Stockpile Chemical Materiel Project; for continued evaluation of non-stockpile disposal technologies; and for continued development of non-intrusive analysis systems for munitions and their surrounding environment.

**BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION**

**TITLE: DEMILITARIZATION TECHNOLOGY**

**C. PROGRAM ACCOMPLISHMENTS AND PLANS:**

**FY 1995 Program:**

**Alternative Technologies and Approaches Project:**

- o Continue basic research and bench-scale testing activities for the Alternative Technologies and Approaches Project (\$9.4 million).

**Non-Stockpile Chemical Materiel Project:**

- o Initiate concept and design efforts for the Munitions Management Device, Version 2 (MMD-2) in support of the Non-Stockpile Chemical Materiel Project (\$11.3 million).

**FY 1996 Program:**

**Alternative Technologies and Approaches Project:**

- o Monitor and manage the Alternative Technologies and Approaches mission (\$0.5 million).
- o Continue basic research and bench-scale testing activities for the Alternative Technologies and Approaches Project (\$6.4 million).
- o Preparation for selection of one or two alternatives for pilot testing (\$3.0 million).
- o Pilot-scale system design and preparation of permit application (\$6.0 million).

**Non-Stockpile Chemical Materiel Project:**

- o Continue work on the design efforts and also initiate the acquisition and testing

**BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION**

**TITLE: DEMILITARIZATION TECHNOLOGY**

phases for the Munitions Management Device, Version 2 (MMD-2). Begin work on the concept/design and acquisition of the Munitions Management Device, Version 3 (MMD-3) and the initiation of the Advanced Technology Assessment effort which includes developing technologies for non-intrusive evaluation of suspect chemical munitions and containers (\$37.1 million).

**FY 1997 Program:**

Alternative Technologies and Approaches Project:

- o Monitor and manage (two workyears of effort) the Alternative Technologies and Approaches mission (\$0.5 million).
- o Preparation of construction bid packages and procedures for startup, operation and maintenance of the pilot plants, laboratory support of the permitting process, and continuing development of analytical and monitoring methods (\$15.5 million).

Non-Stockpile Chemical Materiel Project:

- o Decontamination and toxicology research to support characterization and disposal of waste relating to alternative technology (\$6.2 million).
- o Research advanced methods to access Chemical Warfare Materiel (CWM) and monitor agent destruction (\$5.2 million).
- o Completion of laboratory analytical database for non-intrusive assessment of Chemical Warfare Materiel (CWM) (\$2.0 million).
- o Testing of the Munitions Management Devices (MMD-1) (\$5.4 million).

## **BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION**

**TITLE: DEMILITARIZATION TECHNOLOGY**

- o Design and fabrication of Munitions Management Devices (MMD-2 and MMD-3) (\$13.5 million)

### **D. WORK PERFORMED BY:**

The Program Manager for Chemical Demilitarization is located at Aberdeen Proving Ground, Maryland, and is the government's technical organization involved with the Chemical Stockpile Disposal Project. Bench-scale tests of alternative technologies and approaches will be performed by certified commercial chemical agent surety laboratories and the U.S. Army Chemical and Biological Defense Command. Pilot scale tests, if approved, will be performed for mustard (HD) at Aberdeen Proving Ground, Maryland and for nerve agent (VX) at Newport Chemical Activity, Indiana. The Project Manager for Non-Stockpile Chemical Materiel is located at Aberdeen Proving Ground, Maryland, and is the government's technical organization involved with the destruction of the non-stockpile chemical materiel. The contract for the concept and design efforts for the Munitions Management Devices (MMD) has been awarded to Science Applications International Corporation.

### **E. RELATED ACTIVITIES:**

Currently, there are no related projects. No unnecessary duplication of effort will occur within the Department of Defense (DOD) or the Army. Large-scale destruction of toxic chemical agents and munitions is solely the responsibility of DOD. The U.S. Army is the Executive Agent for the Chemical Stockpile Disposal Project as designated by DOD.

### **F. OTHER APPROPRIATION FUNDS:**

Alternative Technologies and Approaches Project:

There are no other funds related to the Alternative Technologies and Approaches research and development effort.

**BUDGET ACTIVITY 1: RESEARCH, DEVELOPMENT, TEST AND EVALUATION**

**TITLE: DEMILITARIZATION TECHNOLOGY**

Non-Stockpile Chemical Materiel Project:

In FY 1997, \$11.7 million in Procurement funding (Budget Activity 2) is related to follow-on activities upon deployment of the Munitions Management Devices (MMDs). Upon fielding, the MMDs will require additional support equipment such as trailers, maintenance and spare parts, and other support equipment.



## BUDGET ACTIVITY 2: PROCUREMENT

(In Thousands of Dollars)	
FY 1997 Estimate	\$273,600
FY 1996 Budget	\$259,029
FY 1995 Actual	\$198,965

### Purpose and Scope

This budget activity provides for the procurement of all process and support equipment used in the disposal facilities for destroying the unitary chemical stockpile; the Chemical Stockpile Emergency Preparedness Project equipment; and the Non-Stockpile Chemical Materiel Project equipment. It includes costs for design, acquisition, fabrication and installation of equipment. Also included are costs for initial spare parts, freight, software, maintenance and operations manuals relating to specific equipment and design changes during construction and installation.

### Justification of Funds Required

The FY 1997 budget request provides for process design services for Anniston, Umatilla, Pine Bluff, Pueblo, Blue Grass, Aberdeen and Newport Chemical Agent Disposal Facilities (\$9.2 million); equipment acquisition and installation for Anniston, Umatilla, Pine Bluff, Pueblo, and Blue Grass Chemical Agent Disposal Facilities (\$136.8 million); equipment modifications for Johnston Atoll Chemical Agent Disposal System (\$3.5 million) and Chemical Agent Munitions Disposal System (\$1.0 million); equipment for the systems contract for construction and operations of Tooele, Umatilla, Pine Bluff, and Pueblo Chemical Agent Disposal Facilities (\$66.4 million); materials and equipment for depot support for Anniston Chemical Agent Disposal Facility (\$0.1 million); engineering and technical services (\$12.8 million); acquisition of Chemical Stockpile Emergency Preparedness Project equipment (\$21.7 million); and non-stockpile long-lead time equipment (\$22.1 million).

**BUDGET ACTIVITY 2: PROCUREMENT**

**Funded Financial Summary**  
(In Thousands of Dollars)

	<b>FY 1995 Actual</b>	<b>FY 1996 Budget</b>	<b>FY 1997 Estimate</b>
Engineering Services	<u>2,474</u>	<u>12,629</u>	<u>12,800</u>
Johnston Atoll Chemical Agent Disposal System	1,640	3,500	3,500
Chemical Agent Munitions Disposal System	855	1,100	1,000
Tooele Chemical Agent Disposal Facility	15,471	5,600	5,800
Anniston Chemical Agent Disposal Facility	71,265	7,800	14,800
Umatilla Chemical Agent Disposal Facility	19,769	61,500	51,200
Pine Bluff Chemical Agent Disposal Facility	19,001	66,100	40,900
Pueblo Chemical Agent Disposal Facility	5,418	21,800	86,000
Blue Grass Chemical Agent Disposal Facility	125	400	12,700
Aberdeen Chemical Agent Disposal Facility	558	500	500
Newport Chemical Agent Disposal Facility	000	500	600
Chemical Stockpile Disposal Project Enhancements	<u>59,635</u>	<u>26,100</u>	<u>000</u>
<b>Subtotal Chemical Stockpile Disposal Project</b>	<b>196,211</b>	<b>207,529</b>	<b>229,800</b>
<b>Chemical Stockpile Emergency Preparedness Project</b>	<b>1,354</b>	<b>26,100</b>	<b>21,700</b>
<b>Non-Stockpile Chemical Materiel Project</b>	<b>1,400</b>	<b>25,400</b>	<b>22,100</b>
<b>TOTAL</b>	<b>198,965</b>	<b>259,029</b>	<b>273,600</b>

## BUDGET ACTIVITY 2: PROCUREMENT

### Department of Defense Justification of Funds Required

Engineering Services: In FY 1997, funds in the amount of \$12.8 million are required for equipment acquisition services, program management system hardware and software, and technical services to include configuration management, Johnston Atoll Chemical Agent Disposal System support, and engineering change proposal/change notice preparation.

Johnston Atoll Chemical Agent Disposal System (JACADS): The FY 1997 budget request of \$3.5 million includes the purchase of major replacement parts and equipment that are needed because of wear, breakage or as a result of design changes.

Chemical Agent Munitions Disposal System (CAMDS): Funding of \$1.0 million is budgeted in FY 1997 for various plant and equipment modifications required to support baseline testing requirements.

Tooele Chemical Agent Disposal Facility (TOCDF): Funding of \$5.8 million is budgeted in FY 1997 for systems contractor major replacement parts and equipment required due to wear, breakage or design changes.

Anniston Chemical Agent Disposal Facility (ANCDF): In FY 1997, funds in the amount of \$14.8 million are required to procure equipment for the facility, for site-specific design engineering and materials, and equipment required by host installation to support the Chemical Demilitarization Program. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

Umatilla Chemical Agent Disposal Facility (UMCDF): The Umatilla demilitarization facility is scheduled for construction in 4th Quarter FY 1996. In FY 1997, funds in the amount of \$51.2 million are needed to procure equipment for the facility, the systems contractor equipment installation, as well as for site-specific design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

**BUDGET ACTIVITY 2: PROCUREMENT**

**Department of Defense  
Justification of Funds Required  
(Continued)**

Pine Bluff Chemical Agent Disposal Facility (PBCDF): The Pine Bluff demilitarization facility is scheduled for construction in 3rd Quarter FY 1996. In FY 1997, funds in the amount of \$40.9 million are needed to procure equipment for the facility, the systems contractor equipment, as well as for site-specific design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

Pueblo Chemical Agent Disposal Facility (PUCDF): The Pueblo demilitarization facility is scheduled for construction in 3rd Quarter FY 1997. In FY 1997, funds in the amount of \$86.0 million are needed to procure equipment for the facility, the systems contractor equipment, as well as for site-specific design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

Blue Grass Chemical Agent Disposal Facility BGCDF): In FY 1997, funds in the amount of \$12.7 million are required for procurement of long-lead time equipment for the facility and design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

Aberdeen Chemical Agent Disposal Facility (ABCDF): In FY 1997, funds in the amount of \$0.5 million are required for process design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

Newport Chemical Agent Disposal Facility (NECDF): In FY 1997, funds in the amount of \$0.6 million are required for process design engineering activities. Refer to Exhibit P-5A (Procurement History and Planning) for further delineation/description of requirements.

## BUDGET ACTIVITY 2: PROCUREMENT

### Department of Defense Justification of Funds Required (Continued)

Chemical Stockpile Emergency Preparedness Project (CSEPP): Funds in the amount of \$21.7 million are budgeted in FY 1997 to complete procurement of off-post overpressurization projects for the general population. Communication upgrades and new communication systems include both automated data processing networks and voice communications. Completion of these major procurements will greatly enhance both response capabilities and strengthen protective actions for the general population.

Non-Stockpile Chemical Materiel Project (NSCMP): The FY 1997 budget request of \$22.1 million is required for the acquisition of equipment in support of on-site destruction of recovered chemical warfare materiel. Of this amount, \$16.9 million is for the procurement of equipment for mobile chemical warfare materiel destruction system consisting of: 1) \$0.6 million for Rapid Response System (RRS) equipment, 2) \$6.0 million for environmental enclosure to support field operations, 3) \$0.4 million for Munitions Management Device (MMD-3) support equipment, 4) \$7.6 million for support equipment for Munitions Management Devices (MMD-1, 2 and 3) to include environmental enclosures, a mobile laboratory, monitoring equipment and interim holding facilities, and 5) \$2.3 million for the Mobile Munitions Assessment System. In addition, \$5.2 million is required for training, personnel protective equipment, and medical support equipment for test operations in support of RRS production testing.

UNCLASSIFIED										DATE		March 1996	
BUDGET ITEM JUSTIFICATION SHEET													
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092		P-1 ITEM NOMENCLATURE:											
APPROPRIATION /BUDGET ACTIVITY		Chemical Demilitarization Process Equipment											
Procurement/Budget Activity 2													
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02				
QUANTITY													
COST (IN MILLIONS)		199.0	259.0	274.0	351.0	231.0	152.0	47.0			0.0		
<p><b>DESCRIPTION:</b></p> <p>This budget activity provides for the purchase and installation of equipment for disposal facilities to be used for destroying the unitary chemical agent stockpile. This budget activity also provides for the purchase of equipment to support the Chemical Stockpile Emergency Preparedness Project (CSEPP) and the Non-Stockpile Chemical Materiel Project (NSCMP).</p> <p>The FY 1997 funds provide for process design services for Anniston, Umatilla, Pine Bluff, Pueblo, Blue Grass, Aberdeen, and Newport Chemical Agent Disposal Facilities; equipment acquisition for Anniston, Umatilla, Pine Bluff, Pueblo, and Blue Grass Chemical Agent Disposal Facilities; equipment modifications for the Johnston Atoll Chemical Agent Disposal System, and Chemical Agent Munitions Disposal System; equipment for the systems contract for construction at Tooele, Umatilla, Pine Bluff, and Pueblo Chemical Agent Disposal Facilities; acquisition of CSEPP equipment; engineering and technical services; and non-stockpile long-lead time equipment.</p>													
DD Form 2454, Jul 88		P-1 SHOPPING LIST				UNCLASSIFIED			Page of Pages EXHIBIT P-40				
		ITEM NO		PAGE NO		26							

REPORTS CONTROL SYMBOL DD-COMP(AR) 1092		UNCLASSIFIED		DATE		March 1996	
WEAPON SYSTEM COST ANALYSIS EXHIBIT							
APPROPRIATION /BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE			
Procurement/Budget Activity 2				Chemical Demilitarization Equipment			
MANUFACTURER NAME PLANT CITY/STATE LOCATION				WEAPON MODEL/SERIES/POPULAR NAME			
SEE P-5A				Chemical Demilitarization Equipment			
TOTAL COST IN THOUSANDS OF DOLLARS							
FY 95		FY 96		FY 97		FY	
UNIT COST	QUANTITY	UNIT COST	QUANTITY	UNIT COST	QUANTITY	UNIT COST	QUANTITY
TOTAL COST		TOTAL COST		TOTAL COST		TOTAL COST	
1. Engineering Services				12,629	12,800		
2. Johnston Atoll Cml Agent Disposal Facility				3,500	3,500		
3. Chemical Agents and Munitions Disposal Facility				1,100	1,000		
4. Tooele Chemical Agent Disposal Facility				5,600	5,800		
5. Anniston Chemical Agent Disposal Facility				7,800	14,800		
6. Umatilla Chemical Agent Disposal Facility				61,500	51,200		
7. Pine Bluff Chemical Agent Disposal Facility				66,100	40,900		
8. Pueblo Chemical Agent Disposal Facility				21,800	86,000		
9. Blue Grass Chemical Agent Disposal Facility				400	12,700		
10. Aberdeen Chemical Agent Disposal Facility				500	500		
11. Newport Chemical Agent Disposal Facility				500	600		
12. Chemical Stockpile Disposal Project Enhancements Carbon Filtration System				26,100	0		
Sub/Total Chemical Stockpile Disposal				207,529	229,800		
13. Chemical Stockpile Emergency Preparedness Project				26,100	21,700		
14. Non-Stockpile Chemical Materiel Project				25,400	22,100		
TOTAL				198,965	273,600		

P-1 SHOPPING LIST  
 ITEM NO  
 PAGE NO 27

UNCLASSIFIED  
 EXHIBIT P-5

UNCLASSIFIED										DATE		Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT													
P-1 ITEM NOMENCLATURE													
Procurement/Budget Activity 2										Chemical Demilitarization Equipment			
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092	APPROPRIATION /BUDGET ACTIVITY												
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE			
<u>Tooele Chemical Agent Disposal Facility Process Design 1)</u>													
FY 1995 FY 1996 FY 1997	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	731 0 0	N/A	N/A				
<u>Equipment Acquisition and Installation Equipment Installation Contract Annex G (Major Process Equipment ) 2)</u>													
FY 1995 FY 1996 FY 1997	Raytheon Engrs Construction	C/Option	USAEDH	Sep 84	N/A	N/A	336 0 0	Yes	No				
<u>Equipment Acquisition Contract 3)</u>													
FY 1995 FY 1996 FY 1997	Bechtel National Inc.	C/CPFF/FFP	USAEDH	Nov 88	N/A	N/A	1,304 0 0	Yes	No				
REMARKS													
1) There are no budgeted requirements for FY 1997.													
2) There are no budgeted requirements for FY 1997.													
3) There are no budgeted requirements for FY 1997.													
P-1 SHOPPING LIST										UNCLASSIFIED		Page 1 of 2 Pages	
ITEM NO										PAGE NO 28		EXHIBIT P-5A	



UNCLASSIFIED										
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092			BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT					DATE Mar-96		
APPROPRIATION/BUDGET ACTIVITY			P-1 ITEM NOMENCLATURE							
Procurement/Budget Activity 2			Chemical Demilitarization Equipment							
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
Tooele Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)										
FY 1995	EG&G Inc.	C/PAF	USAEDH	Sep 89	N/A	N/A	13,100			
FY 1996							5,600			
FY 1997							5,800			
Depot Support 5)										
FY 1995							0			
FY 1996							0			
FY 1997							0			
Total										
FY 1995							15,471			
FY 1996							5,600			
FY 1997							5,800			
REMARKS										
4) This is a systems contract to purchase major replacement parts and equipment as needed during FY 1997.										
5) There are no budgeted requirements for FY 1997.										
P-1 SHOPPING LIST			PAGE NO 29		UNCLASSIFIED		Page 2 of 2 Pages			
ITEM NO			EXHIBIT P-5A							



UNCLASSIFIED										
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092		BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT					DATE		Mar-96	
APPROPRIATION/BUDGET ACTIVITY		P-1 ITEM NOMENCLATURE								
Procurement/Budget Activity 2		Chemical Demilitarization Equipment								
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
Anniston Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)										
FY 1995	Westinghouse Electric Company	C/FFP	USAIOC	Feb 96	N/A	N/A	69,797			
FY 1996							6,100			
FY 1997							0			
Depot Support 5)										
FY 1995	Unknown	C/FFP	Unknown	Unknown	N/A	N/A	0			
FY 1996							0			
FY 1997							100			
<u>Total</u>							71,265			
FY 1995							7,800			
FY 1996							14,800			
FY 1997										
REMARKS										
4) There are no budgeted requirements for FY 1997.										
5) Budgeted funds for FY 1997 are for materials and equipment required by the host installation to provide support to the chemical demilitarization program.										
P-1 SHOPPING LIST			PAGE NO 31			UNCLASSIFIED		Page 2 of 2 Pages		
ITEM NO								EXHIBIT P-5A		

UNCLASSIFIED										
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT										
P-1 ITEM NOMENCLATURE										
Chemical Demilitarization Equipment										
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
Umatilla Chemical Agent Disposal Facility										
Process Design 1)										
FY 1995 FY 1996 FY 1997	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	1,487 1,500 1,800			
Equipment Acquisition and Installation										
Equipment Installation Contract Annex G (Major Process Equipment ) 2)										
FY 1995 FY 1996 FY 1997	Raytheon Engrs Construction	C/Option	USAEDH	Sep 84	N/A	N/A	0 16,000 0			
Equipment Acquisition Contract 3)										
FY 1995 FY 1996 FY 1997	Bechtel National Inc.	C/CPFF/FFP	USAEDH	Nov 88	N/A	N/A	1,382 24,700 28,600			
REMARKS										
1) The FY 1997 funds are for Phase II work associated with document review, engineering design and field office activities.										
2) There are no FY 1997 budgeted requirements.										
3) The FY 1997 funds provide for the purchase of munitions overpacks, munition trays, automatic chemical agent monitor system, closed circuit TV system, residue handling area equipment, laboratory equipment, non-agent monitors, perimeter monitoring system radios, mine glove box, mine machine and spare parts.										
P-1 SHOPPING LIST				PAGE NO 32				Page 1 of 2 Pages		
ITEM NO				UNCLASSIFIED				EXHIBIT P-5A		

UNCLASSIFIED											
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT											
P-1 ITEM NOMENCLATURE											
Chemical Demilitarization Equipment											
Procurement/Budget Activity 2											
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE	
Umatilla Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)											
FY 1995	Unknown	C/FFP	USAIOC	Mar 96	N/A	N/A	16,900				
FY 1996							19,300				
FY 1997							20,800				
Depot Support 5)											
FY 1995							0				
FY 1996							0				
FY 1997							0				
Total											
FY 1995							19,769				
FY 1996							61,500				
FY 1997							51,200				
REMARKS											
4) This is a systems contract for construction, acquisition and installation of equipment, and disposal operations at Umatilla. Procurement funded items under this contract include acquisition of non-standard equipment items and installation of all process equipment.											
5) There are no budgeted requirements for FY 1997.											
P-1 SHOPPING LIST											
ITEM NO				PAGE NO 33				UNCLASSIFIED		Page 2 of 2 Pages	
EXHIBIT P-5A											

UNCLASSIFIED										DATE		Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT													
P-1 ITEM NOMENCLATURE													
Procurement/Budget Activity 2										Chemical Demilitarization Equipment			
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE			
Pine Bluff Chemical Agent Disposal Facility													
Process Design 1)													
FY 1995 FY 1996 FY 1997	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	321 1,100 2,400						
Equipment Acquisition and Installation													
Equipment Installation Contract Annex G (Major Process Equipment ) 2)													
FY 1995 FY 1996 FY 1997	Raytheon Engrs Construction	C/Option	USAEDH	Sep 84	N/A	N/A	10,258 21,200 0						
Equipment Acquisition Contract 3)													
FY 1995 FY 1996 FY 1997	Bechtel National Inc.	C/CPFF/FFP	USAEDH	Nov 88	N/A	N/A	8,422 14,900 23,400						
REMARKS													
1) The FY 1997 funds are for Phase II work associated with document review, engineering design and field office activities.													
2) There are no budgeted requirements for FY 1997.													
3) The FY 1997 funds are budgeted for munition overpacks, munition trays, valves, instruments, perimeter monitoring system, lab equipment, mine glove box, residue handling area equipment, non-agent monitors, closed circuit TV, mine machine, tipping valve, and spare parts.													
P-1 SHOPPING LIST										UNCLASSIFIED		Page 1 of 2 Pages	
ITEM NO										PAGE NO 34		EXHIBIT P-5A	

UNCLASSIFIED							DATE		Mar-96	
REPORTS CONTROL SYMBOL		BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT								
DD-COMP(AR) 1092		P-1 ITEM NOMENCLATURE								
APPROPRIATION/BUDGET ACTIVITY		Chemical Demilitarization Equipment								
Procurement/Budget Activity 2										
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPEC AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
Pine Bluff Chemical Agent Disposal Facility										
Construction, Equipment and Operations Contract 4)										
FY 1995	Unknown	C/FFP	USAIOC	Jun 96	N/A	N/A	0			
FY 1996							28,900			
FY 1997							15,100			
Depot Support 5)										
FY 1995							0			
FY 1996							0			
FY 1997							0			
Total										
FY 1995							19,001			
FY 1996							66,100			
FY 1997							40,900			
REMARKS										
4) This is a systems contract for construction, acquisition and installation of equipment and disposal operations at Pine Bluff. Procurement funded items under this contract include acquisition of non-standard equipment items and installation of all process equipment.										
5) There are no budgeted requirements for FY 1997.										
P-1 SHOPPING LIST				PAGE NO 35		UNCLASSIFIED		Page 2 of 2 Pages		
ITEM NO								EXHIBIT P-5A		

UNCLASSIFIED										
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT										
P-1 ITEM NOMENCLATURE										
Chemical Demilitarization Equipment										
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE
Pueblo Chemical Agent Disposal Facility Process Design 1)										
FY 1995 FY 1996 FY 1997	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	1,793 500 1,800			
Equipment Acquisition and Installation Equipment Installation Contract Annex G (Major Process Equipment ) 2)										
FY 1995 FY 1996 FY 1997	Raytheon Engrs Construction	C/Option	USAEDH	Sep 84	N/A	N/A	0 11,100 28,700			
Equipment Acquisition Contract 3)										
FY 1995 FY 1996 FY 1997	Bechtel National Inc.	C/CPFF/FFP	USAEDH	Nov 88	N/A	N/A	125 10,200 30,800			
REMARKS										
1) The FY 1997 funds are required for Phase I, Request for Proposal (RFP) support and the establishment of Phase II support to the systems contractor.										
2) The FY 1997 funds are budgeted for liquid incinerator, metal parts furnace, pollution abatement system components, control system, pick and place machine, slag removal system, and spare parts.										
3) For FY 1997, funds are budgeted for rocket shear machine, tipping valve, blast valves, projectile/mortar disassembly machine, multi-purpose demil machine, fire gates, hydraulic modules, container handling facility equipment, valves, instruments, dryers, evaporators, brine reduction area pollution abatement system, uninterrupted power supply, pumps, agent filters, cooling water system, blast door and gates, munition conveyors, vehicles, and spare parts.										
P-1 SHOPPING LIST										
UNCLASSIFIED				PAGE NO 36		Page 1 of 2 Pages				
EXHIBIT P-5A										



UNCLASSIFIED											
REPORTS CONTROL SYMBOL		BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT						DATE		Mar-96	
DD-COMP(AR) 1092		P-1 ITEM NOMENCLATURE									
APPROPRIATION/BUDGET ACTIVITY		Chemical Demilitarization Equipment									
Procurement/Budget Activity 2		Chemical Demilitarization Equipment									
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE	
Pueblo Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)											
FY 1995	Unknown	C/CPAF/FFP	USAIOC	Apr 97	N/A		0				
FY 1996							0				
FY 1997							24,700				
Depot Support 5)											
FY 1995							3,500				
FY 1996							0				
FY 1997							0				
Total											
FY 1995							5,418				
FY 1996							21,800				
FY 1997							86,000				
REMARKS											
4) This is a systems contract for construction, acquisition and installation of equipment, and disposal operations at Pueblo. Procurement funded items under this contract include acquisition of non-standard equipment items and installation of all process equipment.											
5) There are no budgeted requirements for FY 1997.											
P-1 SHOPPING LIST				PAGE NO 37		UNCLASSIFIED		Page 2 of 2		Pages	
ITEM NO				PAGE NO 37		UNCLASSIFIED		Page 2 of 2		EXHIBIT P-5A	

UNCLASSIFIED											DATE		Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT														
P-1 ITEM NOMENCLATURE														
Chemical Demilitarization Equipment														
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE				
Blue Grass Chemical Agent Disposal Facility														
Process Design 1)														
FY 1995	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	0							
FY 1996							400							
FY 1997							300							
Equipment Acquisition and Installation														
Equipment Installation Contract Annex G (Major Process Equipment 1 2)														
FY 1995	Raytheon Engrs Construction	C/Option	USAEDH	Sep 84	N/A	N/A	0							
FY 1996							0							
FY 1997							9,400							
Equipment Acquisition Contract 3)														
FY 1995	Bechtel National Inc.	C/CPFF/FFP	USAEDH	Nov 88	N/A	N/A	125							
FY 1996							0							
FY 1997							3,000							
REMARKS														
1) Budgeted requirements for FY 1997 are for Phase I Request for Proposal (RFP) support and continued Phase I design updates.														
2) The FY 1997 funds are budgeted for procurement of the deactivation furnace system and spare parts.														
3) The FY 1997 funds are budgeted for procurement of charge cars.														
P-1 SHOPPING LIST														
UNCLASSIFIED														
Page 1 of 2 Pages														
EXHIBIT P-5A														

UNCLASSIFIED										DATE Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT											
P-1 ITEM NOMENCLATURE											
Chemical Demilitarization Equipment											
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092	APPROPRIATION/BUDGET ACTIVITY									DATE	
Procurement/Budget Activity 2											
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE	
Blue Grass Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)											
FY 1995					N/A	N/A	0				
FY 1996							0				
FY 1997							0				
Depot Support 5)											
FY 1995							0				
FY 1996							0				
FY 1997							0				
<u>Total</u>							125 400 12,700				
FY 1995											
FY 1996											
FY 1997											
REMARKS											
4) There are no budgeted requirements for FY 1997.											
5) There are no budgeted requirements for FY 1997.											
P-1 SHOPPING LIST										Page 2 of 2 Pages	
ITEM NO										EXHIBIT P-5A	

UNCLASSIFIED										DATE		Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT													
P-1 ITEM NOMENCLATURE													
Procurement/Budget Activity 2										Chemical Demilitarization Equipment			
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE			
Aberdeen Chemical Agent Disposal Facility Process Design 1)													
FY 1995	Ralph M. Parsons	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	558						
FY 1996	Company						500						
FY 1997							500						
Equipment Acquisition and Installation Equipment Installation Contract Annex G (Major Process Equipment) 2)													
FY 1995					N/A	N/A	0						
FY 1996							0						
FY 1997							0						
Equipment Acquisition Contract 3)													
FY 1995					N/A	N/A	0						
FY 1996							0						
FY 1997							0						
REMARKS													
1) The FY 1997 funds are for the technical support to the systems contract Request for Proposal (RFP) process and additional Phase I process design efforts.													
2) There are no budgeted requirements for FY 1997.													
3) There are no budgeted requirements for FY 1997.													
P-1 SHOPPING LIST										UNCLASSIFIED		Page 1 of 2 Pages	
ITEM NO										PAGE NO 40		EXHIBIT P-5A	

UNCLASSIFIED										DATE Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT											
P-1 ITEM NOMENCLATURE											
Chemical Demilitarization Equipment											
Procurement/Budget Activity 2											
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT									DATE Mar-96	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE										
Procurement/Budget Activity 2	Chemical Demilitarization Equipment										
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE	
Aberdeen Chemical Agent Disposal Facility Construction, Equipment and Operations Contract 4)											
FY 1995					N/A	N/A	0				
FY 1996							0				
FY 1997							0				
Depot Support 5)											
FY 1995							0				
FY 1996							0				
FY 1997							0				
Total											
FY 1995							558				
FY 1996							500				
FY 1997							500				
REMARKS											
4) There are no budgeted requirements for FY 1997.											
5) There are no budgeted requirements for FY 1997.											
P-1 SHOPPING LIST											
ITEM NO										PAGE NO 41	
UNCLASSIFIED										Page 2 of 2 Pages	
EXHIBIT P-5A											

UNCLASSIFIED										DATE		Mar-96	
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT													
P-1 ITEM NOMENCLATURE													
Procurement/Budget Activity 2										Chemical Demilitarization Equipment			
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES, WHEN AVAILABLE			
Newport Chemical Agent Disposal Facility Process Design 1)													
FY 1995	Ralph M. Parsons Company	A/E/CPFF	USAEDH	Jul 86	N/A	N/A	0						
FY 1996							500						
FY 1997							600						
Equipment Acquisition and Installation Equipment Installation Contract Annex G (Major Process Equipment ) 2)													
FY 1995					N/A	N/A	0						
FY 1996							0						
FY 1997							0						
Equipment Acquisition Contract 3)													
FY 1995					N/A	N/A	0						
FY 1996							0						
FY 1997							0						
REMARKS													
1) Funding for FY 1997 is for the Phase I design package to be used in the systems contract Request for Proposal.													
2) There are no budgeted requirements for FY 1997.													
3) There are no budgeted requirements for FY 1997.													
P-1 SHOPPING LIST										UNCLASSIFIED		Page 1 of 2 Pages	
ITEM NO										PAGE NO 42		EXHIBIT P-5A	

UNCLASSIFIED										DATE	Mar-96
REPORTS CONTROL SYMBOL DD-COMP(AR) 1092		BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT									
APPROPRIATION /BUDGET ACTIVITY		P-1 ITEM NOMENCLATURE									
Procurement/Budget Activity 2		Chemical Demilitarization Equipment									
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE	
<u>Newport Chemical Agent Disposal Facility</u>											
<u>Construction, Equipment and Operations Contract 4)</u>											
FY 1995					N/A	N/A		0			
FY 1996								0			
FY 1997								0			
<u>Depot Support 5)</u>											
FY 1995								0			
FY 1996								0			
FY 1997								0			
<u>Total</u>								0			
FY 1995								500			
FY 1996								600			
FY 1997											
REMARKS											
4) There are no budgeted requirements for FY 1997.											
5) There are no budgeted requirements for FY 1997.											
P-1 SHOPPING LIST											
ITEM NO											
PAGE NO 43											
UNCLASSIFIED											
Page 2 of 2 Pages											
EXHIBIT P-5A											

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

	(In Thousands of Dollars)
FY 1997 Estimate	\$477,947
FY 1996 Budget	\$345,218
FY 1995 Actual	\$355,784

#### Purpose and Scope

This budget activity provides for the management, technical and operational support required for chemical demilitarization under the Chemical Stockpile Disposal Project (CSDP) and emergency response activities under the Chemical Stockpile Emergency Preparedness Project (CSEPP). It also provides for the support required for remediation of other chemical warfare materiel under the Non-Stockpile Chemical Materiel Project (NSCMP).

#### Justification of Funds Required

Operations financed by this budget activity in FY 1997 include: disposal operations at the Johnston Atoll Chemical Agent Disposal System (JACADS) (\$132.3 million); continuation of Chemical Agent Munitions Disposal System to support the Chemical Stockpile Disposal Project (\$25.7 million); continuation of training activities at the Chemical Demilitarization Training Facility (\$5.1 million); continuation of disposal operations at the Tooele Chemical Agent Disposal Facility (\$110.5 million); construction management, environmental support, training, pre-systemization activities and reconfiguration activities at Anniston Army Depot (\$20.6 million); construction management, safety and environmental support, pre-systemization activities and depot support at Umatilla Chemical Agent Disposal Facility (\$9.5 million) and Pine Bluff Chemical Agent Disposal Facility (\$9.4 million); systems contractor project planning and management activities, government project management field offices, and base support permit compliance and fees and depot Disposal Facility (\$14.3 million); environmental permit compliance and fees and depot support at Blue Grass Chemical Agent Disposal Facility (\$2.4 million); other environmental activities, logistical support, and quality activities at Aberdeen Chemical Agent Disposal Facility (\$3.2 million); and environmental permit compliance and fees and depot support at Newport Chemical Agent Disposal Facility (\$2.3 million). In addition, the budget calls for program and integration support including public affairs, safety and quality assurance (\$11.5 million); program management for the Chemical Demilitarization and Chemical



**BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE**

	(In Thousands of Dollars)
FY 1997 Estimate	\$477,947
FY 1996 Budget	\$345,218
FY 1995 Actual	\$355,784

Stockpile Disposal Project (\$18.3 million); Non-Stockpile Chemical Materiel requirements for destroying chemical-warfare related materiel (\$30.9 million); program oversight, environmental and engineering services (\$15.4 million); carbon filters systemization activities (\$1.6 million); enhancement of the Public Outreach Program, Risk Analysis and Stockpile Surveillance (\$4.2 million) and continued support of emergency response personnel at the state and local levels of government and at the chemical stockpile storage installations (\$60.7 million).

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Funded Financial Summary (In Thousands of Dollars)

	FY 1995 Actual	FY 1996 Budget	FY 1997 Estimate
Program Manager for Cml Demil--Program Management	5,668	6,400	7,900
Project Manager for Cml Stockpile Disposal			
--Program Management	7,147	10,200	10,400
Program and Integration Support	8,907	9,400	11,500
Program Oversight, Environmental & Engineering Svcs	14,636	11,468	15,447
Johnston Atoll Chemical Agent Disposal System (JACADS)	114,484	118,300	132,300
Chemical Agent Munitions Disposal System	21,708	24,400	25,700
Chemical Demilitarization Training Facility	4,105	4,100	5,100
Tooele Chemical Agent Disposal Facility	92,929	52,100	110,500
Annisston Chemical Agent Disposal Facility	7,957	17,600	20,600
Umatilla Chemical Agent Disposal Facility	1,129	3,000	9,500
Pine Bluff Chemical Agent Disposal Facility	1,207	3,650	9,400
Pueblo Chemical Agent Disposal Facility	1,792	2,600	14,300
Blue Grass Chemical Agent Disposal Facility	586	900	2,400
Aberdeen Chemical Agent Disposal Facility	140	1,000	3,200
Newport Chemical Agent Disposal Facility	150	1,700	2,300
Chemical Stockpile Disposal Program Enhancements:			
Carbon Filtration System	700	000	1,600
Other (public outreach, risk assessment, stockpile surveillance)	7,997	5,800	4,200
<b>Subtotal Chemical Stockpile Disposal Project</b>	<b>290,242</b>	<b>271,618</b>	<b>386,347</b>
Chemical Stockpile Emergency Preparedness Project--			
Program Management	954	2,065	2,030
Chemical Stockpile Emergency Preparedness Project--Mission	53,259	55,735	58,670
<b>Subtotal Chemical Stockpile Emergency Preparedness Project</b>	<b>54,213</b>	<b>57,800</b>	<b>60,700</b>
Non-Stockpile Chemical Materiel--Program Management	1,579	2,900	3,300
Non-Stockpile Chemical Materiel Mission	9,750	12,900	27,600
<b>Subtotal Non-Stockpile Chemical Materiel Project</b>	<b>11,329</b>	<b>15,800</b>	<b>30,900</b>
<b>TOTAL</b>	<b>355,784</b>	<b>345,218</b>	<b>477,947</b>

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required

Program Manager for Chemical Demilitarization (PM Cml Demil)--Program Management: This area provides for total management of the demilitarization and disposal of the U.S. stockpile. In addition, this activity provides the programmatic direction and matrix support required by the three project managers who execute the program.

The FY 1997 budget request of \$7.9 million includes \$4.9 million for 42 workyears of labor, awards, overtime, and summer hire program; \$1.4 million for base support; and \$1.6 million for other support costs which includes travel, transportation, and contractual services such as training, materials and supplies, equipment and rentals.

Project Manager for Chemical Stockpile Disposal (PMCS D)--Program Management: Program Management includes implementation and execution, as well as management of the design, development, and acquisition of equipment and facilities, on-site movement of chemical munitions and agents for disposal, demilitarization operations, disposal of waste products, post operational cleanup activities, and plant operations.

The FY 1997 budget request of \$10.4 million includes \$8.1 million for 39 workyears of labor, awards, overtime and summer hire program; \$0.5 million for base support; and \$1.8 million for other support costs which includes travel, transportation and contractual services such as training, materials and supplies, equipment and rentals.

Program and Integration Support: The FY 1997 budget request of \$11.5 million includes \$0.6 million for safety; \$1.6 million for quality functions; and \$9.3 million for program integration and public affairs initiatives such as videos, newsletters, publicity and exhibits.

Program Oversight, Environmental and Engineering Services: These programmatic support activities include those costs which are not directly or economically attributable to a single demilitarization site and are associated with government performers or contractors other than the Program and Integration Support Contract. The main activities included are

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required (Continued)

program oversight by the Department of Health and Human Services (DHHS) and the National Academy of Sciences (NAS); preparation of environmental impact statements by Oak Ridge National Laboratory (ORNL); acquisition of substitute munitions for use in equipment prove-out, preoperational test and training exercises; administrative and technical support to include design and other programmatic costs of the program.

The FY 1997 budget request of \$15.4 million includes \$2.6 million for engineering services in support of design; \$1.0 million for National Environmental Policy Act (NEPA) documentation; \$5.7 million for contracting support from the U.S. Army Corps of Engineers, Huntsville Division, the U.S. Army Industrial Operations Command (IOC), and the U.S. Army Chemical and Biological Defense Command (CBDCOM); \$1.2 million for programmatic engineering studies; \$0.7 million for data management; \$2.6 million for substitute munitions; \$0.9 million for program oversight and agent monitoring; \$0.5 million for solicitation evaluation support; and \$0.2 million for demilitarization support.

Johnston Atoll Chemical Agent Disposal System (JACADS): This item includes all funding required to operate and maintain the chemical demilitarization facility located on Johnston Atoll. Full-scale demilitarization operations were initiated in January 1994, after the successful completion of operational verification testing, and will continue through first quarter FY00.

The FY 1997 budget request of \$132.3 million includes operating contractor efforts consisting of \$81.4 million for 587 workyears of labor and other support costs of \$19.5 million; \$5.1 million for potential award fee; \$22.7 million for base support activities; \$2.7 million for other contractor operational management and evaluation support; and \$0.9 million for environmental support for projects/studies.

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required (Continued)

Chemical Agent Munitions Disposal System (CAMDS): This prototype facility, designed to demonstrate and evaluate demilitarization processes and equipment which will be used to dispose of the entire chemical stockpile, will continue to support the Chemical Stockpile Disposal Project. The CAMDS facility is currently operated under a Resource Conservation and Recovery Act (RCRA) and Research, Development and Demonstration (RDD) permit. Closure (i.e. decontamination of the facility) is required by the existing permit regardless whether the facility is used for pilot testing of alternative technologies. This closure activity is scheduled to occur in 1998. A decision on the future use of CAMDS will be made by the fall of calendar year 1996.

The FY 1997 budget request of \$25.7 million is required for the neutralization of Lewisite agent and efforts leading to closure of this facility. The FY 1997 budget request includes \$10.4 million for 187 workyears of labor for the CAMDS work force and \$9.3 million for other support costs which includes materials/supplies, awards, travel, training, and contracts; \$5.1 million for base support; \$0.5 million for other government agency support; and \$0.4 million for environmental support.

Chemical Demilitarization Training Facility (CDTF): The one-of-a-kind Chemical Demilitarization Training Facility was constructed by General Physics Corporation of Columbia, Maryland, at the Edgewood Area of Aberdeen Proving Ground, Maryland. This training facility, which was completed in June 1991, has been and will continue to be used to train both government and contractor personnel for all eight chemical stockpile disposal facilities and Russian interns on chemical warfare disposal. The International Association for Continuing Education and Training (IACET) named General Physics Corporation an IACET "Certified Provider" for its CDTF courses. The principal cost element of this project is the cost of training contractor instructors and support personnel to maintain the training facility.

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required (Continued)

The FY 1997 budget request of \$5.1 million includes \$4.7 million for 46 workyears for systems contractor efforts consisting of project controls, training operations and preparations; and \$0.4 million for base support.

Tooele Chemical Agent Disposal Facility (TOCDF): The FY 1997 budget request of \$110.5 million includes systems contractor efforts during operations consisting of \$42.7 million for 602 workyears of labor and other support costs of \$43.4 million; \$18.5 million for general base support activities, utilities and munitions movement labor (64 workyears); \$3.6 million for contract administrative services, safety support, and Program and Integration Support Contract services which provides field office and general support; and \$2.3 million for environmental permits and fees and the cooperative agreement with the State of Utah.

Anniston Chemical Agent Disposal Facility (ANCDF): The FY 1997 budget request of \$20.6 million includes \$5.2 million for contractor efforts consisting of \$1.0 million for 8 workyears for engineering analyses, studies and testing in support of pre-systemization activities and other support costs of \$4.2 million; \$11.0 million for base support activities which includes manpower requirements for reconfiguration and depot support (134 workyears); \$3.0 million for contractor support which includes contract administrative services and Program and Integration Support Contract services; and \$1.4 million for environmental support which includes permit compliance and fees.

Umatilla Chemical Agent Disposal Facility (UMCDF): The FY 1997 budget request of \$9.5 million includes \$4.5 million for systems contractor efforts consisting of pre-systemization efforts, training, and other costs; \$0.6 million for base support activities; \$3.0 million for contractor support which includes contract administrative services, Program and Integration Support Contract services and systems engineering functions; and \$1.4 million for environmental activities.

**BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE**

**Department of Defense  
Justification of Funds Required  
(Continued)**

Pine Bluff Chemical Agent Disposal Facility (PBCDF): The FY 1997 budget request of \$9.4 million includes \$3.9 million for systems contractor efforts consisting of pre-systemization and training activities; \$1.1 million for general base support activities; \$0.1 million for contractor support which includes data management; and \$4.3 million for environmental support and fees.

Pueblo Chemical Agent Disposal Facility (PUCDF): The FY 1997 budget request of \$14.3 million includes \$2.6 million for initial systems contractor training efforts, Program and Integration Support, and contract administrative services; \$9.4 million for reconfiguration support (29 workyears) and general depot support; and \$2.3 million for environmental support for fees and soil baseline samples.

Blue Grass Chemical Agent Disposal Facility (BGCDF): The FY 1997 budget request of \$2.4 million includes \$0.3 million for general depot support and \$2.1 million for environmental support which includes permit compliance, fees and reports.

Aberdeen Chemical Agent Disposal Facility (ABCDF): The FY 1997 budget request of \$3.2 million includes \$0.1 million for general base support; \$0.2 million for quality activities; and \$2.9 million for environmental support which includes permit compliance, fees and reports.

Newport Chemical Agent Disposal Facility (NECDF): The FY 1997 budget request of \$2.3 million includes \$0.7 million for general base support and \$1.6 million for environmental support which includes permit compliance and fees.

### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required (Continued)

##### Chemical Stockpile Disposal Program Enhancements:

Carbon Filtration System: The FY 1997 budget request of \$1.6 million is for development studies for modified carbon filtration system based on the results of modeling and simulation.

Other: The FY 1997 budget request of \$4.2 million includes \$2.2 million for enhancement of the Public Outreach Program and \$2.0 million for surveillance of the chemical stockpile.

Chemical Stockpile Emergency Preparedness Project (CSEPP)--Program Management: The FY 1997 budget request of \$2.0 million includes \$1.5 million for 3 workyears of labor, awards and overtime; \$0.2 million for travel and transportation; and \$0.3 million for contractual services to include training, materials, and supplies.

Chemical Stockpile Emergency Preparedness Project (CSEPP)--Mission: The FY 1997 budget request of \$58.7 million includes continued support of emergency response personnel at the state and local levels of government and at the chemical stockpile storage installations consisting of \$30.9 million for continuation of state emergency preparedness programs by the Federal Emergency Management Agency and \$27.8 million for continuation of 24-hour emergency operations centers; operation, testing, and maintenance of agent monitoring and decontamination equipment and operation testing, and maintenance of warning, communication, and automated data processing systems for the stockpile installations.



### BUDGET ACTIVITY 3: OPERATION AND MAINTENANCE

#### Department of Defense Justification of Funds Required (Continued)

Non-Stockpile Chemical Materiel Project (NSCMP)--Program Management: The FY 1997 budget request of \$3.3 million includes \$2.4 million for 17 workyears of labor, awards, overtime, and summer hire program; \$0.4 million for travel; and \$0.5 million for contractual effort, materials and supplies, and base operation support costs.

Non-Stockpile Chemical Materiel Project (NSCMP)--Mission: The FY 1997 budget request of \$27.6 million includes \$10.8 million for programmatic oversight/management consisting of support of other government agencies and contractors, training, services in support of field operations, and facility maintenance and supplies; \$11.8 million for problem definition and design phase for destruction of former production facilities; and \$5.0 million for the destruction of small quantities of recovered chemical warfare materials, empty ton containers, Chemical Identification Sets using the Rapid Response System, and chemical agents previously used for research activities.

## MILITARY CONSTRUCTION, DEFENSE-WIDE

	(In Thousands of Dollars)
FY 1997 Estimate	\$131,621
FY 1996 Budget	\$ 13,000
FY 1995 Actual	\$ 24,000

### Purpose and Scope

The Military Construction, Defense-Wide appropriation provides funding for design and construction of full-scale chemical disposal facilities and associated projects to upgrade installation support facilities and infrastructures required to support the Chemical Demilitarization Program. This document provides requirements for the construction of chemical disposal facilities budgeted in the Military Construction, Defense-Wide appropriation in order to provide a clear, non-fragmented accounting of the requirements necessary to meet the Congressional mandate.

### Justification of Funds Required

The costs for facilities construction for each chemical disposal plant to be built are based on site-specific design criteria and depot infrastructure requirements. Included in these requirements are planning, acquisition, construction and other supporting activities in order to complete the Chemical Demilitarization Program as scheduled.

# MILITARY CONSTRUCTION, DEFENSE-WIDE

## Funded Financial Summary (In Thousands of Dollars)

In FY 1995, 1996, and 1997 funding levels to support the following facilities and depot support are shown below:

<u>Location/Facilities/Support</u> <u>Facilities Construction</u>	<u>FY 1995</u> <u>Actual</u>	<u>FY 1996</u> <u>Budget</u>	<u>FY 1997</u> <u>Estimate</u>
AL, Anniston Chemical Agent Disposal Facility, Phase V	5,000		
UT, Tooele Chemical Agent Disposal Facility	4,000		
OR, Umatilla Chemical Agent Disposal Facility, Phases I and II	12,000		64,000
AR, Pine Bluff Chemical Agent Disposal Facility, Phases I and II	3,000		46,000
CO, Pueblo Chemical Agent Disposal Facility, Phase I			17,497
Total Construction	<u>24,000</u>	<u>—</u>	<u>127,497</u>
Planning and Design (Various Locations):	<u>—</u>	<u>13,000</u>	<u>4,124</u>
<b>TOTAL</b>	<b>24,000</b>	<b>13,000</b>	<b>131,621</b>

NOTE: These military construction requirements are not a part of the Chemical Agent and Munitions Destruction, Defense (CAMD,D) appropriation, but are essential to the Chemical Demilitarization Program. Without these resources, the program cannot be executed as shown in this document.